## RX 450h Pre-Delivery Service Manual

## Lexus Technician:

## Before you perform a Pre-Delivery Service (PDS) on this vehicle, be sure you:

- Read and understand this PDS Manual
- Read and understand all applicable PDS Technical Service Information Bulletins (TSIBs) for this vehicle
- Read and understand the PDS Precautions in the TSIBs and pages 2, 60, 62
- Attend the "Technical Introduction to Lexus Course L005" at the Lexus Area Office

## When performing a PDS on this vehicle:

- Use the PDS Manual when performing this service
- Check the Techincal Information System (TIS) for any updated PDS TSIBs (TSIBs) that apply to the model you are servicing
- Verify the Vehicle Identification Number (VIN) on repair order and vehicle match
- · Lift vehicle and perform undervehicle safety/damage inspection
- Road test vehicle long enough to test hot engine and driven over rough road/Bott dots to test for rattles/squeaks
- When completed, sign Vehicle Delivery Certificate, located in the glovebox

## The following TSIBs are available on TIS:

Battery Maintenance for In-Stock Vehicles & Pre-Delivery (Revised) Floor Mat Installation During PDS Front License Plate Mounting Bracket Installation Hybrid System Electrical Safety Precautions Initial Calibration of Compass during PDS Long-Term Vehicle Storage Guidelines Maintenance for HV & Auxiliary Batteries Short Pin Installation During PDS Tire Positioning Before New Vehicle Delivery (Revised) Tire Pressure Warning System Activation & Initialization

## To obtain PDS material:

Manual

- Download from TIS website or Lexus Customer Services website on Dealer daily
- Order from MDC, 00242-PDSRX-HMN10

Check Sheet

- Sheet is two-sided, back side has procedure tips
- Order from MDC, 00242-PDSRX-HCK10, each packet contains 25 Check Sheets
- Download from TIS website or Lexus Customer Services website on Dealer Daily

Vehicle Delivery Certificate

Order from MDC, 00242-TIQ10

- Other PDS TSIBs
  - Download from TIS website

## Contact your District Service & Parts Manager if you have any questions.

# 2010MY RX 450h Pre-Delivery Service Manual



## INDEX

Technical Service Information B Available on TIS	ulletins	Exterior lights	13	Parking b
Battery maintenance		Exhaust system	66	Personal
Compass		Fluid leaks	29	Power do
Floor Mat		Fog lights	62	Power ou
Short pin		Footwell lighting	50	Power se
Tire positioning		Front seat position memory	27	Power su
Tire pressure compensation/ac	djustment	Fuel filler door opener	29, 55	Power wir
Bott Dot Road Test Layout		Glove box	49	Rubber b
Manual		Glove box portfolio	78	Rear seat
AFC (Adaptive Front Lighting		Headlight aim	62	Rear seat
AFS (Adaptive Front-Lighting System)	72	Headlight indicator light	29	Rear view
Air conditioning	40	Headlight cleaner	33	Road test
Armrest	50	Headlights	29	Safety Co
Audio system	41	Head-up display	38	Scuff light
Auxiliary battery	56	Heater	40	Seat adju
Auxiliary boxes	49	Head restraints	23	Seat belts
Back door	8, 54	High beam indicator light	29	Seat heat
Backup camera	45	HomeLink <sup>®</sup> garage door opener	53	Shift lever
Brake	67	Hood release	58	Shift lock
Brake fluid level	59	Horn	29	Side mon
Brake pedal adjustments	68	Hybrid mode select	69	Smart Ac
Chassis bolts	65	Hybrid transmission operation	69	Show mo
Check Sheet (PDS)	77	Illuminated entry	9	Steering
Child protector locks	22	Immobilizer system	21	Sterago
Clock	46	Inside rear view mirror	52	Sun visor
Console box	49	Instrument panel light control	29	Thaft date
Coolant level	60	Interior lights	50	Tilt and te
Cruise control	73	Intuitive parking assist	44	Tire
Cup holders	49	Jack & jack handle	54	Tools
Door courtesy lighting	50	Lug nut torque	63	TRAC
Door locks	9, 28	Luggage carpet	56	Turn sign
Door pockets	49	Moon roof	51	Vehicle D
Dynamic radar cruise control	74	Multi-display light control	47	Vanity mi
Eco mode	69	Multi-information display	37	VSC
Electric cooling fans	62	NavWeather	39	Warning 8
Electronically modulated		Navigation system	39	Washer fl
air suspension	71	On-board diagnostic system	53	Wheel ce
Emergency flasher	29	Outer foot lights	50	Wireless
Engine oil level	58	Outside rear view mirrors	26	Wipers &
EV drive mode	69			

3	Parking brake	67
5	Personal lights	50
)	Power door locks	28
2	Power outlets	47
)	Power seats	23
7	Power supply changeover	20
5	Power windows	28
)	Rubber body plugs	66
3	Rear seat	23
)	Rear seat entertainment system	43
)	Rear view monitor	45
3	Road test	67
)	Safety Connect	53
, 2	Scuff lights	50
, ,	Seat adjustments	23
) X	Seat belts	22
, ,	Seat heater / ventilator	41
2	Shift lever lighting	50
2	Shift lock override button cover	5
, ,	Side monitor	46
1	Smart Access system	10
,	Snow mode	69
)	Steering operation	75
)	Steering wheel switches	42
	Storage compartments	49
2	Sun visors	52
)	Theft deterrent system	12
)	Tilt and telescopic steering wheel	25
1	Tire 54,	63
1	Tools	54
3	TRAC	72
ò	Turn signal	29
I	Vehicle Delivery Certificate	77
7	Vanity mirrors	52
7	VSC	72
)	Warning & Indicator lights	33
9	Washer fluid level	60
3	Wheel center caps	63
)	Wireless door lock	11
ò	Wipers & washers	31

As part of the PDS road test, the vehicle must be driven over a rough road surface or over Bott Dots in order to check for squeeks and rattles. If a rough surface is not available for this road test, Bott Dots should be installed on the dealership property where vehicles can be safely driven 5 to 10 mph. (See Bott Dots installation instructions below, as recommended and provided by TMC Quality Division.) Bott Dots are commonly available at industrial supply outlets.



I.BEFORE STARTING PRE-DELIVERY SERVICE
II.INSPECTION DETAILS 6
A. VEHICLE EXTERIOR
B. VEHICLE INTERIOR
C. LUGGAGE COMPARTMENT
D. UNDER THE HOOD
E. UNDER VEHICLE (ON HOIST)
F. ROAD TEST 67
G. FINAL INSPECTION
H. TWO HOURS BEFORE DELIVERY
III.MAINTENANCE FOR HV/AUXILIARY BATTERY BEFORE DELIVERY

The RX450h has unique operating modes, so always follow the precautions below when performing the PDS operation:

- The RX450h contains high voltage (288-650 volts) AC and DC Systems. All high voltage wiring and connections are orange in color. Do not carelessly touch these orange colored wiring harnesses and connectors.
- The hybrid system may start up and shut down suddenly whenever the "READY" light is illuminated. Be sure to put the selector lever in "P", apply the parking brake, and select the "POWER" switch in the OFF in order to stop the hybrid system (the "READY" light goes OFF), before working in the engine compartment.
- The hybrid transaxle, engine radiator, and inverter radiator may reach high temperatures during inspection. Carefully observe all caution labels and instructions on these components.
- Be sure to keep the selector lever in "P" at all times unless otherwise instructed. When the selector lever is in "N", the hybrid vehicle battery will not charge even if the gasoline engine is operating.
- When leaving the vehicle, put the selector lever in "P", apply the parking brake, and push the "POWER" switch in the OFF in order to stop the hybrid system (the "READY" light goes OFF).
- Air vents are located under the rear seats to cool the hybrid vehicle battery. Do not block these air vents.
- Do not splash water on the electric components in the engine compartment.

# I. BEFORE STARTING PRE-DELIVERY SERVICE

## 1. WASHING VEHICLE

After thoroughly washing vehicle, check it to make sure all adhesive wrapping film has been removed.

### NOTICE:

Hand washing of the vehicle is recommended.

## 2. WATER LEAK TEST

Visually and by hand check for water leaks in the vehicle interior from each of the following areas (make sure that the trim and floor carpet are not damp):

- a) Door glass weather strips
- b) Front cowl sides
- c) Around the windshield
- d ) Around the moon roof\* area
- e) Around the quarter window
- f) Around the rear window

## 3. ENGINE COMPARTMENT SIDE COV-ER REMOVAL

Push the core of the clips of the engine compartment side cover and remove the clips. After that, remove the engine compartment side cover.

## 4. SHORT PIN INSTALLATION

Refer to the Service Bulletin.







## 5. ENGINE COMPARTMENT COVER IN-STALLATION

Installation is in the reverse order of removal.

Insert the clips, as shown in the illustration.

## 6. SHIFT LOCK OVERRIDE BUTTON COVER INSTALLATION

Install the cover into the shift lock override button hole.

## NOTE:

The cover is in a plastic envelope attached to the shift lever.

# II. INSPECTION DETAILS

## A. VEHICLE EXTERIOR



## A01. CHECK PAINT FINISH (PAINT DEFECT, DAMAGE)

- a) Wash the vehicle. (Hand washing is recommended.)
- b) Visually and by hand inspect all body panels (doors, back door, fenders, engine hood, roof panel) for surface damage from shipment or any abnormalities (surface rust, paint flaking, chips, dents or scratches).

### NOTE:

Use a well-illuminated area to clearly inspect all painted surfaces. 800-lux illumination is recommended.



Visually and by hand check the following parts for proper installation, rust, fit, misalignment and loose items:

- a) Front and rear bumpers
- b ) Window moldings (front, side and rear)
- c) Lexus emblems (front and rear)
- d) Outside rear view mirrors
- e) Headlights, turn signal lights, side marker lights, fog lights and tail light lenses
- f) Doors, engine hood and fuel filler door
- g) Moon roof\*
- h) Front/rear door panel protector
- i) Outside door handle
- j) Radiator grille
- k) Vehicle name emblems





## A03. CHECK BACK DOOR

- a ) Check that the door opens and closes smoothly using the exterior door handle.
- b) Check that the back door cannot be opened by pressing the back door opener button when all the doors are locked by power door lock switch, wireless remote control, smart access system or key.
- c) Check the luggage compartment light comes on when the back door is opened.



Power Back Door Switch



Back Door Closer Switch



## For vehicle with power back door system\*

- a) Operate the power back door switch and check that the back door opens and closes properly.
- b) Check that the back door closes automatically to the full-closed position.

## NOTE:

When the back door opens or closes automatically, beep sound and the emergency flashers flash twice.

## **INSPECTION DETAILS - A. Vehicle Exterior**





c) Check that the power back door system switches on and off by operating the off switch.

1 On 2 Off

## A04. CHECK DOOR LOCK SYS-TEM AND ILLUMINATED EN-TRY SYSTEM

- a) Check that all doors open and close smoothly using the inside and outside door handles.
- b) Check that the doors cannot be opened by using the inside and outside door handles when the lock button is in the locked position (except front inside door handles).
- c) For front inside door handles: Check that the front doors can be opened by using the inside door handles when the lock button is in the lock position.
- d) Check exterior key lock control system operation by mechanical key (with driver's door).

### NOTE:

The following is how to remove and store the mechanical key.

 To remove the mechanical key. Electronic key: Release the lock and pull the key out. Card key\*: Push and hold the button, and

pull the key out.To store the mechanical key

Electronic key: Slide and hold the release knob, and insert the key.

Card key\*: Push and hold the button, and insert the key.

\* If equipped

## **INSPECTION DETAILS - A. Vehicle Exterior**







- 1 Locks all doors
- 2 Closes the windows and moon roof.(Turn and hold)
- 3 Unlocks the door (two-step unlock function):
  - 1. Turn the key once to unlock the driver's door.
  - 2. Turn the key twice to unlock all the doors.
- 4 Opens the windows and moon roof. (Turn and hold)
- e) Check the illuminated entry system operation. The following lights will illuminate when the door is opened:
  - 1 Front interior lights
  - 2 Rear interior lights
  - 3 Door courtesy lighting
  - 4 Scuff lights\*
  - 5 Footwell lighting
  - 6 Outer foot lights

## A05. CHECK SMART ACCESS SYSTEM

- a) With electronic key within the vehicle, touch the lock sensor (the indication on the upper part of the door handle) and back door lock button. Check that the buzzer sounds and that the door does not lock.
- b) Take the electronic key and get out of the vehicle. Touch the lock sensor (the indication on the upper part of the door handle) and back door lock button. Check that the door locks.

### NOTE:

Recognition signals for the lock operation will operate up to two consecutive times.

c) From a distance of at least 2.3 ft. (0.7 m), approach the vehicle and pull the outside door handle of left and right sides and the back door opener. Check that the door unlocks.

### NOTE:

The doors cannot be unlocked for 3 seconds after the doors are locked.

\* If equipped

RX450h



## A06. CHECK WIRELESS DOOR LOCK REMOTE CONTROL SYSTEM

Inspect the five functions of the system.

- 1 Locks all doors
- 2 Unlocks all doors
- 3 Opens the windows and moon roof\* (Press and hold)
- 4 Opens/closes the back door\* (Press and hold)
- 5 Sounds alarm (Press and hold)
- a) Locking the door
  - 1. Close all the doors.
  - 2. Press 🛐 on the electronic key to lock all the doors from outside the vehicle.

#### NOTE:

At this time, all the turn signal lights flash once sounding one beep. However, when you press is with any door not closed securely, the buzzer sounds for 10 seconds or until all the doors are closed securely.

- b) Unlocking the doors
  - 1. Press 🔝 on the electronic key once to unlock the driver's door.
  - 2. Press nonce again within 3 seconds after the first pressing to unlock the other doors.

#### NOTE:

At this time, the interior light and outer foot lights come on and all the turn signal lights flash twice, sounding two beeps.

- 3. Check that all doors automatically relock after 60 seconds if any door is not opened.
- c) Opening the windows and moon roof\* Press and hold 💽 until the windows and moon roof start moving. When is released, they stop opening.

### NOTE:

When all the windows and the moon roof start to open, one beep sounds.



 d) Unlock and open/close the back door\*
Keep pressed for about 1 second to unlock and open/close the back door automatically.

#### NOTE:

At this time, all the turn signal lights flash once sounding two beeps.

- e) Sounding an alarm
  - 1. Keep pressed for about 1 second to sound an alarm.

#### NOTE:

At this time, all the headlights, tail lights and turn signal lights flash.

2. To stop the alarm, press any button.



## A07. CHECK THEFT DETERRENT SYSTEM

With the doors, engine hood and back door locked, check that the system operates properly.

#### System Test:

- a) Open the windows.
- b) Lock the doors by smart access system, wireless remote control or mechanical key. Be sure to wait until the security light on the center panel starts flashing.
- c) Unlock one of the doors using the inside door lock. The system should activate the alarm (sounding of the horn, blinking of the headlights, tail lights and emergency flasher, lighting up interior light).
- d) Cancel the system by unlocking doors with the smart access system, wireless remote control or mechanical key.



## A08. CHECK EXTERIOR LIGHTS

Walk around the vehicle and check that the following lights illuminate:

- a) Headlights
- b) Daytime running light (when parking brake is released with the "POWER" switch in ON mode)
- c) Parking lights
- d ) Side marker lights
- e) Fog lights
- f) Turn signal lights
- g) License plate lights
- h) Tail lights
- i) Brake and high-mounted brake lights (when brake pedal is depressed)
- j) Back-up lights (when shift lever is placed in "R" position with the "POWER" switch in ON mode)

## **B. VEHICLE INTERIOR**

## ELECTRICAL SYSTEM / ACCESSORY OPERATION



		Page	Item No.
1	Cup Holders	49	B29
2	Gauges, Meter and Multi-information Display	33 37	B15 B16
3	Glove Box	49	B29
4	Power Back Door Off Switch	8	A03
5	Remote Touch*	39 40 46	B18 B19 B25
6	Engine Hood Release Lever	58	D01
7	Door Lock Switch	28	B10
8	Power Window Switches	28	B10
9	Window Lock Switch	28	B10
10	Driving Position Memory Switches*	27	B09

\* If equipped



		Page	ltem No.
11	Navigation System	39	B18
	Rear View Monitor System	45	B24
	Intuitive Parking Assist*	44	B23
	Side Monitor System*	46	B25
12	Emergency Flasher Switch	29	B12
13	Multi-Display	47	B27
	Audio Display	41	B21
	Air Conditioning Display	40	B19
	Clock	46	B26
14	Audio System	41	B21
15	Clock	46	B26
16	Rear Window and Outside Rear View Mirror Defoggers	26	B08
17	Air Conditioning System	40	B19



		Page	ltem No.
18	Headlight, Turn Signal Lever and Fog Light Switch	29	B12
19	Windshield Wipers/Washer Switch and Rear Window Wiper/ Washer Switch	31	B13
20	"POWER" Switch	20	B02
21	Multi-information Switch	37	B16
22	Distance Switch*	73	F09
23	Cruise Control Switch	73	F09
24 25	Tilt and Telescopic Steering Control Switch	25	B07
20 26	Side Camera Switch*	46	B25
20	Audio Remote Control Switches	41	B21

## **INSPECTION DETAILS - B. Vehicle Interior**



		Page	ltem No.
27	Head-up Display Main Switch*	38	B17
28	Display Contrast Adjustment Switch*	38	B17
29	Display Position Adjustment Switch*	38	B17
30	Power Outlet Main Switch*	47	B28



		Page	ltem No.
31	Height Control Off Switch* (Not for U.S.A.)	71	F06
32	Tire Pressure Warning Reset Switch	-	-



		Page	ltem No.
33	Headlight Cleaner Switch*	33	B14
34	Power Back Door Switch*	8	A03
35	Fuel Filler Door Opener	29	B11
36	Instrument Panel Light Control	29	B12
37	Odometer/Trip Meter and Trip Meter Reset Button	-	-
38	Height Control Switch*(Not for U.S.A.)	71	F06
39	Windshield Wiper De-icer Switch* (Not for U.S.A.)	-	-

## NOTE:

Inspect interior parts after removing the necessary factory interior protective covering.

To prevent the battery from being discharged, the hybrid system should be running when the electrical control switches are turned on.



## B01. CHECK INTERIOR PARTS FOR DAMAGE AND FIT

Visually inspect the appearance of the following interior parts for dirt, damage, and proper fit and alignment:

- a ) Instrument panel, dashboard and glove box
- b ) Roof headliner, pillar, roof side garnish and sun visors
- c) Door trim and quarter trim panels
- d) Seat upholstery, floor carpeting and door scuff plates
- e) Console box
- f) Steering wheel

## B02. CHECK POWER SUPPLY CHANGEOVER AND HYBRID SYSTEM START/STOP

Check for proper activation of the "POWER" switch.

## Power supply changeover

- a) Carry the electronic key in the vehicle and apply the parking brake.
- b) Without depressing the brake pedal, press the "POWER" switch and change the power supply.

## 1 OFF

- 2 Pressed once (from OFF): Power supply mode is in the ACCES-SORY mode.
- 3 Pressed twice (from OFF): Power supply mode is in the ON mode.
- 1 Pressed three times (from OFF): Power supply mode is in the OFF.
- c) In each mode, check that the power supply has changed properly.

## NOTE:

If the "POWER" switch illuminator blinks in amber, refer to the *Repair Manual*.









#### Hybrid system start/stop

- a) Carry the electronic key in the vehicle and apply the parking brake.
- b ) Check that the shift lever is in the "P" position.

c) When depressing the brake pedal, check that the green "POWER" switch illuminator comes on and push the "POWER" switch to start the hybrid system.

#### NOTE:

After a while, the "READY" indicator comes on with a beep sound.

d) Push the "POWER" switch regardless of brake position to stop the hybrid system.

#### NOTE:

If the hybrid system is stopped with the shift lever in a position other than "P", the power supply mode is switched to the ACCESSO-RY mode, not to OFF and the battery will be depleted.



## B03. CHECK IMMOBILIZER SYS-TEM

- a) Check that the security indicator light flashes when the "POWER" switch selects the OFF.
- b) Check that the hybrid system can be started using all the keys (For electronic keys and card key\*).
- c) Check that the security indicator light turns off when starting the hybrid system.







## **B04. CHECK SEAT BELTS**

Check seat belts operation.

- a ) Check that each belt extends and retracts smoothly.
- b ) Check that the belt lengths are not twisted.
- c) Check that the buckles lock securely and release smoothly.
- d ) Check that the adjustable seat belt anchors operate properly and that they securely lock in position.

B05. CHECK CHILD PROTECTOR LOCKS

Check that the rear doors cannot be opened by the inside door handle but can be opened by the outside door handle when the child protector is in the locked position.





Check that the seats slide smoothly, recline properly and lock securely in any position.

- a) Front Seats
  - 1 Seat position adjustment
  - 2 Seatback angle adjustment
  - 3 Seat cushion (front) angle adjustment
  - 4 Vertical height adjustment
  - 5 Lumbar support adjustment
  - 6 Seat cushion length adjustment\*
  - 7 Head restraints adjustment





#### b) Rear Seats

- 1 Seat position adjustment
- 2 Seatback angle adjustment
- 3 Head restraints adjustment

### **Folding Instructions**

- 1. Before folding
- (1) Stow all the head restraints and the rear center seat belt buckle.









(2) Stow the seat belts inside the rear seat side pockets.

- 2. Folding (from inside)
- (1) Pull the seatback angle adjustment lever.

(2) Center seatback only: Pull the center seatback lever.

- 3. Folding (from outside) Pull the lever.
  - Left side lever: Fold down the left side rear seat.
  - Right side lever: Fold down the right side rear seat.







## B07. CHECK TILT AND TELE-SCOPIC STEERING WHEEL

Check tilt and telescopic steering wheel operation.

a) Manual Switch Operation

#### Tilt Steering Wheel:

With the "POWER" switch in the ACCESSO-RY or ON mode, push the control switch up or down to set the steering wheel in the desired height position.

#### **Telescopic Steering Wheel:**

With the "POWER" switch in the ACCESSO-RY or ON mode, push the control switch away from driver or toward driver to set the steering wheel in the desired position.

- \*: With driving position memory: When the driver's seat belt is fastened, the steering column can be adjusted regardless of "POWER" switch mode.
- b) Automatic Tilt-away Operation (without driving position memory)
- Automatic tilt-away operation
  - 1. Switch the "POWER" switch OFF.
  - 2. Check that the steering column moves away from the driver and tilts up.
- Return operation
  - 1. Switch the "POWER" switch to AC-CESSORY or ON mode.
  - 2. Check that the steering column automatically move to the previous position.
- c) Automatic Tilt-away Operation (with driving position memory)
- Automatic tilt-away operation
  - 1. With navigation system only: Set the driver's seat movement to a setting other than "Off" using the function customization system.

## NOTE:

Refer to *Owner's Manual* for customizable features.

- 2. Switch the "POWER" switch OFF.
- 3. Unfasten the driver's seat belt.





- 4. Check that the steering column moves away from the driver and tilts up and that the driver's seat moves backward.
- Return operation
  - 1. Switch the "POWER" switch to AC-CESSORY mode or fasten the driver's seat belt.
  - 2. Check that the steering column and the driver's seat automatically move to the previous position.

## B08. CHECK OUTSIDE REAR VIEW MIRRORS

- a) Check power outside rear view mirror operation with the "POWER" switch in the ACCESSORY or ON mode.
  - Press the master switch "L" (left) and "R" (right) and press the control switch in the desired direction (up, down or side-to-side). Check that the mirrors operate smoothly.
  - 2. Press the mirror folding switch to fold the mirror and press again to extend the mirror.

- 3. Press the automatic mirror folding switch and lock the doors. Check that the mirrors are folded.
- b) With the "POWER" switch in the ON mode, check that the mirrors move down quickly by the following operation.
  - Put the shift lever in the "R" position.
  - Press "L" (left mirror) or "R" (right mirror) on the master switch.



c) Check the operation of the mirror defoggers.

Press the rear window and outside rear view mirror defogger switch with the "POWER" switch in the ON mode, check by hand that the rear window and rear view mirrors become hot.

- d) Check that the outer foot light operates properly in the following conditions.
  - When entering the effective range of the smart access function (about 2.3 ft. (0.7 m) from each outside door handle) with carrying the electronic key.
  - The doors are unlocked with the wireless remote control.
  - The doors are unlocked with power door lock switch on the driver's side when the "POWER" switch is in the ON mode.

## NOTE:

- Check that the outer foot lights illuminate for 15 seconds and then go off.
- When shift lever is moved out of the "P" position, the outer foot lights go off.

## B09. CHECK DRIVING POSITION MEMORY SYSTEM\*

- a) With the "POWER" switch in the ON mode and the shift lever in "P" position, check the operation:
  - 1. Adjust the driver's seat, tilt and telescopic steering wheel and outside rear view mirrors to the desired positions.
  - 2. While pressing the "SET" button, press down the button "1", "2" or "3" until a beep is heard.
  - 3. Check all buttons (1, 2 and 3) to make sure that all memorized settings operate correctly.
- b ) With the shift lever in the "P" position, close the driver's door and turn the "POWER" switch to ON mode.
  - 1. Register a driving position to the button "1", "2" or "3".

\* If equipped





- Do not carry more than one key (including a card key\*) when registering. While pressing the button "1", "2" or "3", press the driver's door lock switch (either lock or unlock switch) until a signal beeps.
- 3. Unlock the driver's door using the entry function or wireless remote control, open the driver's door, and check that the stored driving position is recalled.

## B10. CHECK POWER WINDOWS AND DOOR LOCKS

- a) With the "POWER" switch in the ON mode, operate the power window switch on each door. Check that the power window up and down operation is smooth.
  - 1 Closing
  - 2 One-touch closing
  - 3 Opening
  - 4 One-touch opening
- b) Check that the windows (other than the driver's window) cannot be operated when the window lock switch is on.



- c) Check operation of the power door lock switches from the driver's and passengers' doors.
  - 1 Locks all doors

2 Unlocks all doors

d) With the doors closed, check that the power windows can be fully operated after the "POWER" switch has been switched to the ACCESSORY mode or OFF.

## NOTE:

This feature is canceled after 45 seconds or if either front door is opened.

\* If equipped





## B11. CHECK FUEL FILLER DOOR OPENER

Check operation of the fuel filler door opener.

- B12. CHECK TURN SIGNAL, HEADLIGHT, HIGH BEAM, FOG LIGHT, EMERGENCY FLASHER INDICATOR LIGHTS, INSTRUMENT PAN-EL LIGHT CONTROL AND HORN
  - a) Check that the turn signal indicator lights on the instrument panel illuminate when the turn signal lever is moved up or down.
    - 1 Right turn

2 Left turn

- 3 Move and hold the lever part way to signal a lane change (Right)
- 4 Move and hold the lever part way to signal a lane change (Left)
- b) Check that the headlight or tail light indicator light illuminates when the headlight switch is on.
  - 1 Turn off the daytime running light system\*
  - 2 The headlights and side marker, parking, tail, license plate and instrument panel lights turn on and off automatically. (When the "POWER" switch is in ON mode.)
  - 3 The side marker, parking, tail, license plate and instrument panel lights turn on.
  - 4 The headlights and all lights listed above turn on.







### NOTE:

- Headlights automatically turn off about 30 seconds after the "POWER" switch is turned to the ACCESSORY mode or turned off and the driver's door is opened and closed.
- When only the tail lights come on, the lights automatically turn off with the driver's door opened and the "POW-ER" switch turned to the ACCESSO-RY mode or turned off.
- c) Check operation of the automatic light control function.
- d) Check that the high beam indicator light illuminates when the high beams are on.
  - 1 With the headlights on, push the lever forward to turn on the high beams.
  - 2 Pull the lever toward you to turn on the high beams.
- e) Check that the Automatic High Beam indicator light\* illuminates, push the lever forward with the headlight switch in the "AUTO" position.

f) Check that the front fog lights are on when front fog light switch is on with the headlights on.





g) Check that the turn signal lights and turn signal indicator lights blink when the emergency flasher switch is on.

h)



- h ) Check that the instrument panel light control switches operates properly.
- i) Check that the horn sounds when the horn button is pressed.

## B13. CHECK WINDSHIELD WIP-ERS AND WASHERS

With the "POWER" switch in the ON mode:

### Front wiper

a) Push the lever toward you and check that washer fluid squirts onto the proper area of the windshield and that wipers are activated. Wipers will make one additional pass after a 3-second delay.



1 Wash/wipe operation





b) Check wiper speed operation on mist, intermittent, low and high cycles. Check that the wiper blades wipe off the washer fluid cleanly.

2 Intermittent type — Intermittent wiper operation

Rain-sensing type — Rain-sensing wiper operation

- 3 Low speed wiper operation
- 4 High speed wiper operation
- 5 Temporary operation
- c) The wipers should not make any abnormal noise when operating.

#### For rain-sensing type

d) With the wiper switch lever in the "AUTO" position, splash the water on the windshield around the windshield sensor and check that the wipers operate.

### NOTE:

- Intermittent type The frequency of the intermittent can be adjusted by turning the knob.
- Rain-sensing type The sensitivity of the sensor can be adjusted by turning the knob.
- · Add washer fluid up to the proper level.

### **Rear wiper**

- a) Twist the knob at the end of the lever and check that washer fluid squirts onto the proper area of the glass.
- b) Check wiper speed operation on intermittent and normal cycles. Check that the wiper blade wipes off the washer fluid cleanly.
  - 1 Intermittent window wiper operation
  - 2 Normal window wiper operation
  - 3 Washer/wiper dual operation
- c) The wiper should not make any abnormal noise when operating.

### NOTE:

Add washer fluid up to the proper level.




## B14. CHECK HEADLIGHT CLEAN-ER\*

With the "POWER" switch in the ON mode and the headlights on, push the headlight cleaner switch and check that washer fluid splashes on the headlights.

#### B15. CHECK WARNING LIGHTS AND INDICATOR LIGHTS

- a) With the "POWER" switch in the ON mode, check that each warning and/or indicator light operates properly.
- b) With the "POWER" switch in the ON mode, check that the following warning and/or indicator lights turn on and then go off after a few seconds:
  - Slip indicator light
  - ABS warning light
  - SRS airbag warning light
  - Tire pressure warning light
  - Master warning light
  - PCS (Pre-Collision System) warning light\*
  - Automatic High Beam indicator light\*
  - AFS (Adaptive Front-lighting System) OFF indicator light\*
  - Brake system warning light
  - VSC (Vehicle Stability Control) off indicator light
  - Electric power steering system warning light
  - Electronically modulated air suspension indicator light\*
  - Charging system warning light
  - Malfunction indicator lamp
  - Eco Driving Indicator Light
  - SRS airbag on-off indicator light (on the center panel)

Refer to "Warning Lights and Buzzers" on page 34 for details.

# Warning Light and Buzzer

Light/Buzzer		Function/Condition	
BRAKE	Brake System Warning Light (U.S.A.)	Brake system warning light	
(!)	Brake System Warning Light (Canada)	<ul> <li>Malfunction in the brake system</li> </ul>	
	Brake System Warning Light	<ul><li>Indicates a malfunction in</li><li>The regenerative brake system.</li><li>The electronically controlled brake system.</li></ul>	
4	Seat Belt Reminder Light and Buzzer	The driver's and front passenger's seat belt reminders sound to alert the drive and front passenger that his or her seat belt is not fastened. The buzzer sounds intermittently for 10 seconds after the vehicle has reached a speed of at least 12 mph (20 km/h). Then, if the seat belt is still unfas- tened, the buzzer will sound in a different tone for 20 more seconds.	
*	SRS Airbag System Warning Light	<ul> <li>Indicates a malfunction in:</li> <li>The SRS airbag system.</li> <li>The front passenger occupant classification system.</li> <li>The seat belt pretensioner system.</li> </ul>	
+	Charging System Warn- ing Light	Indicates a malfunction in the vehicle's charging system.	
Qğ	Malfunction Indicator Lamp (U.S.A.)	<ul> <li>Indicates a malfunction in:</li> <li>The hybrid system.</li> <li>The electronic engine control system.</li> <li>The electronic throttle control system.</li> <li>The emission control system.</li> </ul>	
$\overline{Q}$	Malfunction Indicator Lamp (Canada)		

Light/Buzzer		Function/Condition	
	Master Warning Light	A buzzer sounds and the warning light comes on or flashes to indicate that the master warning system has detected a mal- function. If the master warning light comes on, a message appears on the multi-information display.	
ABS	ABS (Anti-lock Brake System) Warning Light (U.S.A.)	The light comes on when the "POWER" switch is in the ON mode and will go off after 3 seconds. This means that the system is operating	
((AB3))	ABS (Anti-lock Brake System) Warning Light (Canada)	properly. This light warns that there is a problem somewhere in the ABS and the brake assist system.	
PCS	PCS (Pre-Collision Sys- tem) Warning Light*	The light warns that there is a problem somewhere in the PCS. The light comes on when the "POWER" switch in the ON mode. If the system works properly, the light turns off after a few seconds.	
(!)	Tire Pressure Warning Light	Indicates low tire pressure. When the light stays on after blinking for 1 minute, it indicates a malfunction in the tire pressure warning system.	
	Open Door Warning Light and Buzzer	Indicates that a door or the back door is not fully closed. When the vehicle reaches a speed of 3 mph (5 km/h), a buzzer sounds to alert that one or more doors are not fully closed.	
<u>()</u>	Electric Power Steering System Warning Light	This light comes on when the "POWER" switch is selected in the ON mode and goes off when the hybrid system is started. This means that the system is operating prop- erly. This light warns that there is a problem somewhere in the electric power steering system. Also when the battery charge is not enough or the electricity temporarily decreases, the light might come on.	

Light/Buzzer		Function/Condition
	Low Fuel Level Warning Light	Indicates the fuel level is low. (Approxi- mately 2.7 gal. [10.1L, 2.2 Imp. gal.])

Warning Message (on the Multi-Information Display)

The multi-information display shows warning of system malfunctions, incorrectly performed operations, or shows messages that indicate a need for maintenance. When a message is shown, perform the correction procedure appropriate to the message.



- 1 Master warning light The master warning light comes on or flashes when a message is being shown on the multi-information display.
- 2 Multi-information display.





# B16. CHECK MULTI-INFORMA-TION DISPLAY

The multi-information display provides information of vehicle driving conditions and warning messages.

Review the following functions:

#### Trip information

- a) Press the "ENTER" switch upwards or downwards and cycle through the following modes:
  - Energy monitor
  - Current fuel consumption
  - Average fuel consumption after refueling
  - Average fuel consumption
  - Average vehicle speed
  - Cruising range
  - Tire inflation pressure
  - Multi-information display off

#### **Electronic features control**

- b) Press the menu switch and press the "ENTER" switch upwards or downwards, and cycle through the following mode:
  - Intuitive parking assist\*
  - Eco mode
  - Snow mode
  - AFS (Adaptive Front-lighting System)\*
  - EV drive mode



- c) Press and hold the menu switch and press the "ENTER" switch upwards or downwards, change the customizable features.
- d) Open any doors and back door, and check that the opening condition is displayed by graphic information.

#### NOTE:

Refer to the multi-information display section in the vehicle's *Owner's Manual* for a comprehensive list of the system's functions and displays.

# **B17. CHECK HEAD-UP DISPLAY\***

- a) Press the head-up display main switch, check that the head-up display is displayed on the driver's side windshield and vehicle speed display units changes as follows:
  For U.S.A.
  OFF → ON (mph) → ON (km/h) → OFF
  For Canada
  OFF → ON (km/h) → ON (mph) → OFF
  - b ) Check that the head-up display brightness adjustment switch operate properly.



c) Check that the head-up display position adjustment switch operate properly.











# B18. CHECK LEXUS NAVIGATION SYSTEM\*

a) With the "POWER" switch in the AC CESSORY or ON mode, check that the initial "LEXUS" screen appears for a few seconds and then changes to the "CAUTION" screen, depending on the previous display.

#### NOTE:

"CAUTION" screen appears if map or destination screen was displayed during last use.

b) Press the "MENU" button and selects the "Destination", "Info. Phone", "Setup", "Climate" or "Audio" icon. Press the "ENTER" button and check that the display changes.

#### NOTE:

After about 5 seconds, the "CAUTION" screen automatically switches to the map screen. When the "MAP/VOICE" button is

#### c) XM NavWeather

This service is active on all new Lexus vehicles with navigation systems. To confirm activation, press the "MENU" button, select "Info.Phone" then select "XM NavWeather".

NOTE: If service is currently unavailable, the nav screen will show the following pop up message: "XM signal not available or active XM subscription needed." This means one of the following: (a) XM tuner is looking for active subscription confirmation from XM. (b) XM data is not received by the vehicle after vehicle startup. XM signal is most likely blocked, allow vehicle to idle in an unobstructed area for approximately 3 minutes.

(c) 90 day trial subscription has expired. Consult TIS for further diagnosis and repairs.

#### NOTE:

After about 5 seconds, the "CAUTION" screen automatically switches to the map screen. When the "MAP/VOICE" button is also pressed, the map screen is displayed.





# B19. CHECK AIR CONDITIONING AND HEATER

Warm up the hybrid system and turn on the "A/C" button, and then check for smooth operation of each control as follows:

With navigation system — Before checking the air conditioning and heater, press the "MENU" button. Select the "Climate" and press the "ENTER" button to display switches for automatic air conditioning control.

- a) Press the blower button (Hi) and set the temperature to 85 °F (29.5 °C) with the "TEMP" button.
- b) Press the windshield air flow button and check that hot air flows out of the front defroster vents.
- c) Set the air flow mode in "FOOT" with the "MODE" button and check that hot air flows out of the foot vents.
- d) Check that the air flow volume changes when the air intake control button is pressed.
- e) Press the "AUTO" button and the "DU-AL" button (indicator on) in order and lower the temperature of the driver's side with the "TEMP" button.
- f) Check that the display of the air flow mode and the air flow volume changes automatically.
- g ) Set the temperature of the driver's side at 65 °F (18.5 °C).
- h) Check that the temperature of the passenger side remains at 85 °F (29.5 °C).
- i) Set the air flow mode in "FACE" with the "MODE" button.
- j) Check that cool air flows out of the driver's side center vent and hot air flows out of the passenger's side center vent.
- k ) Press the "DUAL" button (indicator off) and check that cool air flows out of both center vents.
- I) Check that cool air flows out of the side vents and the rear console box vents.
- m )Check that the outside temperature displays.
- n ) Press and hold the "OFF" button.





# B20. CHECK SEAT HEATER AND VENTILATOR/HEATER\*

o) Turn on the rear window defogger switch and check that the indicator light illumi-

With the "POWER" switch in the ON mode, check that the indicator light comes on properly when the knob is turned on. Turn the knob at "0" and the light goes off after testing.



nates.



#### **B21. CHECK AUDIO SYSTEM**

- a) With the "POWER" switch in the AC-CESSORY or ON mode, press the "PWR-VOL" knob on and check for proper operation of both AM and FM stations.
- b) Pre-set all the station selector buttons to local broadcast frequencies.
- c) CD and DVD player should be inspected for proper operation prior to delivery.



#### Checking audio function of the audio remote control switch

- a) With the "POWER" switch in the ON mode, press the "MODE" button located on the steering wheel and check that the mode changes as follows:
  - With CD changer: FM (1, 2) → SAT (1, 2, 3)\* → CD changer → Bluetooth<sup>®</sup> audio\* → AUX → USB\* (iPod<sup>®</sup> player or USB memory player) → AM → FM (1, 2)
  - With DVD changer: FM (1, 2)  $\rightarrow$  SAT (1, 2, 3)  $\rightarrow$ DVD changer  $\rightarrow$  Bluetooth<sup>®</sup> audio  $\rightarrow$ AUX  $\rightarrow$  USB  $\rightarrow$  AM  $\rightarrow$  FM (1, 2)
  - 1 Turns the power on, selects audio source
- b) Check that audio volume changes when the volume button on the steering wheel is pressed.

2 Volume

- c ) Check that the select function for each mode works properly.
  - 3 CD mode:

Selects tracks, files (MP3 and WMA) and discs

DVD mode (with DVD changer): Selects tracks, chapters and discs Bluetooth<sup>®</sup> audio\* mode:

Selects a track and album

iPod<sup>®</sup> player\* mode:

Selects a song

USB memory player\* mode: Selects a file and folder



### B22. CHECK REAR SEAT ENTER-TAINMENT SYSTEM\*

- a) When the "ENGINE START STOP" switch in the ACCESSORY or IGNITION ON mode, press the "SOURCE" button and check that the audio source selection screen appears.
- b ) Check for proper operation of AM/FM/ SAT stations.
- c) The DVD player and wireless headphones should be inspected for proper operation prior to delivery.

d ) Place remote control in rear console box.



- e) Insert a plug-in headphone (not provided) into the headphone jack, and then check for smooth operation of the following controls:
  - 1 Headphone jack
  - 2 Volume knob



P/A

# B23. CHECK INTUITIVE PARKING ASSIST\*

This procedure is performed put a pole ( $\emptyset$  2.36 in (60 mm) at 6 points:

- a) With the "POWER" switch in the ON mode, press the menu switch and press the "ENTER" switch upwards or downwards until intuitive parking assist mark appears.
  - When checking the front side, move the shift lever to a position other than the "P" position.
  - When checking the rear side, move the shift lever to the "R" position.
- b) Check that the indicator light will illuminate when the "ON" is selected by pressing "ENTER" switch. **NOTE:**

At this time, one beep sounds.



- c) Pole stands at point as illustrated and gradually approaches the vehicle.
  - 1 About 2.0 ft. (60 cm)
  - 2 About 1.6 ft. (50 cm)
  - 3 About 4.9 ft. (150 cm)



d) Check that the buzzer sounds and the indicator bar is displayed on the multi-information display and navigation screen.

#### **Multi-information display**

- 1 Front corner sensor detection
- 2 Rear corner sensor detection
- 3 Back sensor detection

#### **Navigation Screen**

- 1 When the vehicle is moving backward and an obstacle is detected
- 2 When the vehicle is moving forward

At the same time, check that the interval of the buzzer shortens and ultimately changes to the continuous sound.



#### **B24. CHECK REAR VIEW MONI-TOR SYSTEM\***

When the "POWER" switch is in the ON mode and the shift lever is shifted to the "R" position, check that the rear view is displayed on the screen.

1 Without navigation system



2 With navigation system



# B25. CHECK SIDE MONITOR SYS-TEM\*

- a ) With the "POWER" switch in the ON mode, press the switch and check that the side monitor is displayed on the screen.
- b) When the display area button is selected, press the "ENTER" button. Check that the each monitor changes.

# **B26. CHECK AND SET CLOCK**

With the "POWER" switch in the ACCESSO-RY or ON mode, check that the clock is operating.

#### Without navigation system:

Set the clock to the proper time. To reset the hour, press the "H" button. To reset the minutes, press the "M" button.

#### With navigation system:

Refer to Navigation System Owner's Manual.



# Inside the console box Luggage compartment

# B27. CHECK MULTI-DISPLAY LIGHT CONTROL\*

Press and release the multi-display light control switch, check that the brightness of the display is adjusted to 4 levels.

# **B28. CHECK POWER OUTLETS**

#### 12V

- a ) Open the lid, remove the upper tray and lower tray
- b) With the "POWER" switch in the AC-CESSORY or ON mode, check the power outlet using an electrical accessory designed for this use.

\* If equipped



#### 120 VAC\*

With the "POWER" switch in the ON mode, press the power outlet main switch and check that the indicator light illuminates. Check the power outlet using an electrical accessory designed for this use.

\* If equipped



#### B29. CHECK GLOVE BOX, DOOR POCKETS, CUP HOLDERS, CONSOLE BOX AND AUXIL-IARY BOXES

Check that the glove box, door pockets, cup holders, console box and auxiliary boxes open and close smoothly and that they do not make any noise during operation.

\* If equipped

![](_page_53_Picture_1.jpeg)

![](_page_53_Picture_2.jpeg)

# **B30. CHECK ARMREST**

Check that the center armrest operates smoothly.

B31. CHECK INTERIOR, PERSON-AL, SHIFT LEVER, DOOR COURTESY, "POWER" SWITCH, FOOTWELL, OUT-ER FOOT AND SCUFF\* LIGHTS

Check operation of the following interior lights:

- 1 Front personal lights
- 2 Front interior lights
- 3 Shift lever lighting
- 4 Rear personal lights
- 5 Rear interior lights
- 6 Door courtesy lighting
- 7 Scuff lights\*
- 8 Footwell lighting
- 9 Outer foot lights

![](_page_54_Picture_1.jpeg)

![](_page_54_Picture_2.jpeg)

# **B32. CHECK MOON ROOF\***

With the "POWER" switch in the ON mode, check for smooth operation, travel and any unusual noise.

- a) Check the tilt function open and close.
- b) Check the automatic open function of the moon roof by pressing and holding the moon roof switch in the open direction for 1 second, and then release the switch. The moon roof should automatically slide to the comfort stop position and stop once. To fully open the moon roof, press the switch in the open direction again.

#### NOTE:

To stop travel of the moon roof when it is in the automatic open mode, press the slide switch towards the close position prior to the moon roof fully opening.

- c) To close the moon roof, hold the moon roof switch in the close direction for 1 second, and then release the switch. The moon roof should automatically slide to the fully closed position.
- d) The sun shade can be opened or closed manually; however, the sun shade will automatically open with the moon roof.
- e) Check that the moon roof can be fully operated after the "POWER" switch has been switched to the ACCESSORY mode or OFF.

#### NOTE:

However, it cannot be operated after 45 seconds or if either front door is opened.

![](_page_55_Picture_1.jpeg)

![](_page_55_Picture_2.jpeg)

## B33. CHECK INSIDE REAR VIEW MIRROR

Check that the inside rear view mirror operation.

- a) Press the "POWER" switch to select the ON mode, and check that the mode indicator on the inside rear view mirror illuminates (automatic mode).
- b) Check that the mode changes between the automatic mode (mode indicator on) and day mode (mode indicator off) alternately by pressing the "AUTO" switch.
- c) Turn the interior light to the on and cover the rear view mirror forward light sensor (located in front side of mirror). The rear view mirror and both outside mirrors should darken. When the interior light is off and your finger is removed, the mirrors should be brightened.

![](_page_55_Picture_8.jpeg)

![](_page_55_Picture_9.jpeg)

# B34. CHECK SUN VISORS AND VANITY MIRRORS

- a) Check that the sun visors are easy to use in the following operations:
  - 1 Flip down
  - 2 Unhook and swing to the side
  - 3 Place in side position, and slide backward
- b ) Open the cover and check that the vanity light comes on.

![](_page_56_Picture_1.jpeg)

# B35. CHECK HomeLink ® GARAGE **DOOR OPENER & SAFETY** CONNECT

Check the HomeLink® garage door opener by pressing each of the three buttons and observing that the indicator light illuminates. Final operational check requires programming.

Check SafetyConnect, if equipped, by pressing the button and observing that the indicator light is green.

![](_page_56_Picture_5.jpeg)

#### **B36. SAFETY CONNECT®**

Inspect the Safety Connect LED, (located in the overhead console) for a green activation statusindicator. If green LED is not illuminated, press the SOS button once, wait for voice prompt, and press the button again within 5 seconds. If successful, tones will be heard followed by voice prompt saying "Activation is complete - Good bye". Green light will change from off to green after call has ended. If the green light does not illuminate, please refer to TIS for troubleshooting procedures.

![](_page_56_Picture_8.jpeg)

Light indicator

#### NOTE:

Vehicles may arrive with hanger requesting inspection to Safety Connect system. If system is working properly and green light is illuminated, disregard hanger.

![](_page_56_Picture_12.jpeg)

#### B37. CHECK ON-BOARD DIA-GNOSTIC SYSTEM OP-ERATION

Using the "Techstream", check the on-board diagnostic system function.

For details of this procedure, refer to the engine troubleshooting section of the Repair Manual.

# C. LUGGAGE COMPARTMENT

![](_page_57_Picture_2.jpeg)

![](_page_57_Picture_3.jpeg)

# C01. CHECK TOOLS, JACK AND JACK HANDLE

Check that the tools, jack and jack handle are properly installed.

# C02. CHECK TEMPORARY SPARE TIRE PRESSURE

Check and adjust air pressure to the specified value.

Spare tire air pressure

 T165/90D18 107M: 60 psi (420 kpa, 4.2 kgf/cm<sup>2</sup> or bar)

![](_page_57_Picture_10.jpeg)

### C03. CHECK MANUAL BACK DOOR OPENER

Check for proper operation of the manual back door opener located on the back door.

#### NOTE:

Be careful not to damage the back door trim board and cover when removing the cover by using the tool.

![](_page_58_Picture_1.jpeg)

![](_page_58_Picture_2.jpeg)

![](_page_58_Picture_3.jpeg)

![](_page_58_Picture_4.jpeg)

# C04. CHECK MANUAL FUEL LID RELEASE LEVER

a) With a compact spare tire: Remove the spare tire cover.

- b) Push the core of the clips and remove the clips.
- c) Remove the auxiliary battery cover.

d ) Check for proper operation of the manual fuel lid release lever.

e) Install the auxiliary battery cover and insert the clips in their original position.

![](_page_59_Picture_1.jpeg)

# C05. AUXILIARY BATTERY TER-MINAL TIGHTNESS AND CHARGE

For battery charging and inspection refer to the Service Bulletin.

Check that the battery terminals are properly connected and that the clamp is fimly installed.

## C06. CHECK TRIM APPEARANCE AND LUGGAGE CARPET FIT

Inspect the luggage trim and luggage carpet for proper installation and appearance.

# D. UNDER THE HOOD

# <section-header>

		Page	ltem No.
1	Brake Fluid Reservoir	59	D03
2	Engine Oil Filler Cap	-	-
3	Engine Oil Level Dipstick	58	D02
4	Power control unit coolant reservoir	60	D04
5	Fuse Boxes	-	-
6	Engine Coolant Reservoir	60	D05
7	Radiator	-	-
8	Condenser	-	-
9	Cooling Fans	62	D09
10	Power control unit coolant radiator	-	-
11	Washer Fluid Tank	60	D06

#### NOTE:

Install protective fender covers prior to beginning the under hood inspection.

![](_page_61_Picture_1.jpeg)

![](_page_61_Picture_2.jpeg)

Check that the opening and closing of the engine hood is smooth and that the latch operates properly using the engine hood release lever.

![](_page_61_Picture_4.jpeg)

![](_page_61_Picture_5.jpeg)

#### D02. CHECK ENGINE OIL LEVEL (HYBRID SYSTEM NOT RUN-NING)

a) Remove the engine oil level dipstick and wipe it clean. Reinsert the dipstick and pull it out to check the oil level. The level should be between the two marks.

![](_page_61_Picture_8.jpeg)

b) Check for dirt or impurities in the oil.

#### NOTICE:

If the oil level is too low, add specified engine oil and check for oil leaks.

![](_page_62_Picture_1.jpeg)

# D03. CHECK BRAKE FLUID LEVEL

Visually check the fluid level through the reservoir. If the fluid level is low, replenish the brake fluid reservoir with FMVSS No. 116 DOT 3 or SAE J1703 brake fluid and check for fluid leaks.

Brake fluid level should be the "MAX" line (within 0.2 in. [5.0 mm] below).

![](_page_62_Picture_5.jpeg)

NOTE:

Refer to the *Repair Manual* for fluid specifications.

![](_page_63_Picture_1.jpeg)

#### D04. CHECK HYBRID SYSTEM POWER CONTROL UNIT COOLANT LEVEL

Visually check the coolant level through the coolant reservoir tank when the hybrid system is cool. The coolant level is satisfactory if the level is between the "FULL" and "LOW" lines on the tank.

![](_page_63_Picture_4.jpeg)

#### CAUTION:

To prevent burning yourself, do not remove the radiator cap when the hybrid system is hot.

![](_page_63_Picture_7.jpeg)

# D05. CHECK ENGINE COOLANT LEVEL

Visually check the coolant level through the coolant reservoir tank when the engine is cool. The coolant level is satisfactory if the level is between the "FULL" and "LOW" lines on the tank.

1	Reservoir cap
2	FULL
3	LOW

#### CAUTION:

To prevent burning yourself, do not remove the radiator cap when the engine is hot.

![](_page_63_Picture_13.jpeg)

# D06. CHECK WASHER FLUID LEVEL

Open the washer tank cap and visually check the washer fluid level in the washer tank. The fluid level should be visible from top. Add fluid if necessary.

#### **D07. CHECK WIRING AND HOSE**

- a) Check the hoses, hose connectors and various clamps for tightness.
- b ) Visually inspect the condition of all harness connectors and terminals for proper installation and tightness.

# D08. CHECK HYBRID SYSTEM OPERATION

Check that the hybrid system operation is smooth (engine stability, no noise, engine vibration or rough idle, etc.).

![](_page_65_Picture_1.jpeg)

# D09. CHECK ELECTRIC COOLING FANS

a) Check that the engine cooling fan rotate smoothly.

#### CAUTION:

The engine cooling fan are controlled depending on engine coolant temperature. Do not touch the fans when the engine is hot.

b) Turn the air conditioning on and built up sufficient pressure. Then, check that the electric cooling fans turn on and rotate smoothly.

#### CAUTION:

The electric cooling fans are controlled depending on air conditioning refrigerant pressure. Do not touch the fans when the "A/C" switch is turned on.

# D10. CHECK FOR FLUID LEAKS

Check for fuel, oil, coolant or other fuel leaks around the following components:

- a) Engine (cylinder head and around the head cover)
- b) Hybrid transaxle
- c) Brake lines and hoses
- d) Radiator and hoses
- e) Fuel lines and hoses

#### D11. CHECK HEADLIGHT AIM

If headlight aim not correct, see *Repair Manual* for headlight aim procedure.

#### D12. FRONT LICENSE PLATE MOUNTING BRACKET AND LICENSE PLATE INSTALLA-TION

Refer to the Service Bulletin.

# E. UNDER VEHICLE (ON HOIST)

#### **BEFORE LIFTING VEHICLE**

![](_page_66_Picture_3.jpeg)

# E01. WHEEL LUG NUT TORQUE (Should be checked if wheels have been taken off.)

Using a torque wrench, tighten all wheel lug nuts to the specified torque in the order of the numbers in the illustration to the left.

#### Torque specifications: 76 ft-lbf (103 N•m, 10.5 kgf•m)

### E02. ACTIVATION AND INITIAL-IZATION OF TIRE PRES-SURE WARNING SYSTEM

Refer to the Service Bulletin

# E03. CHECK TIRES

Visually inspect all tires for damage and/or defects.

#### E04. INSTALL WHEEL CENTER CAPS

Install the wheel center caps on the wheels.

![](_page_66_Figure_13.jpeg)

#### AFTER LIFTING VEHICLE

#### **E05. REMOVE WHEEL FILM**

Visually inspect rotors for rust.

#### NOTE:

For the best rotor rust prevention, retain wheel film on vehicle until just prior to customer delivery.

If leakage is found, see Repair Manual.

#### E06. CHECK CHASSIS INSPEC-TION FOR LEAKAGE OR DAMAGE

- a) Visually and by hand check the following components for proper installation, clamping, connection and damage:
  - Brake lines, hoses and protectors
  - Fuel lines, hoses and protectors
  - Steering linkage and dust boots
  - Drive shaft boots
  - Parking brake cable
- b) Visually check the following components for fluid leakage:
  - Engine
  - Hybrid transaxle
  - Steering gear
  - Brake lines
  - Fuel lines
  - Rear axle
- c) Visually check the entire underside of the body for proper rust-resistant coating.

![](_page_67_Picture_22.jpeg)

![](_page_68_Picture_1.jpeg)

## E07. CHECK AND TIGHTEN ALL CHASSIS BOLTS OF COMPONENTS THAT ARE REPLACED DUE TO REPAIRS

Check that all chassis bolts and nuts and suspension components are tight. See the *Repair Manual* for proper bolt torque specification.

- a) Front and rear suspensions
- b) Steering linkages
- c) Front/rear cross members
- d) Front/rear brakes
- e) Drive shaft

![](_page_69_Picture_1.jpeg)

# E08. CHECK EXHAUST SYSTEM

Visually check for leaks and damage to the exhaust pipes and mufflers. Ensure they are properly installed.

#### E09. CHECK RUBBER BODY PLUGS

Install the rubber body plugs into the torque box holes.

#### NOTE:

Plugs are shipped with the vehicle and put in the glove compartment.

# F. ROAD TEST

A comprehensive road test is vital in order to ensure that a perfect automobile is delivered to a Lexus customer. We recommend that you map out a specific road test course that includes a variety of road conditions including stop and go, highway speed and rough road surfaces. This will help you check for squeaks, rattles, drifts, pulls and a variety of other conditions that must be corrected prior to delivery.

#### NOTE:

Make sure protective covers are in place on the seats and carpet prior to starting the road test.

![](_page_70_Picture_5.jpeg)

- a) Check hybrid system performance over a broad range of driving conditions including acceleration, cruising and deceleration.
- b) Make sure hybrid system operation is smooth and responsive.
- c) Make sure the gauges, speedometer and Hybrid System Indicator operations are smooth and accurate.

#### F02. CHECK BRAKE AND PARK-ING BRAKE

- a) Check braking effort. Check for pull or any abnormal noise.
- b) Check the parking brake: With the "POWER" switch in the ON mode, check that the brake warning light comes on when the parking brake is applied (and goes off when it is released).

Parking brake pedal travel at 67.4 lbf (300 N, 30.6 kgf): 5-8 clicks

![](_page_70_Picture_13.jpeg)

![](_page_71_Figure_1.jpeg)

![](_page_71_Figure_2.jpeg)

![](_page_71_Figure_3.jpeg)

- a) Check the brake pedal height.
  Pedal height from tibia pad:
  6.25 6.65 in. (158.8 168.8 mm)
- b) Check the brake pedal free play.
  Push in the pedal by hand and check that the pedal free play is within the specification.
  Pedal free play:
  0.04 0.08 in. (1.0 2.0 mm)

![](_page_71_Figure_6.jpeg)

c) Check brake pedal reserve distance. Release the parking brake. With the hybrid system running, depress the brake pedal and measure the pedal reserve distance.

Pedal reserve distance from tibia pad at 112 lbf (500 N, 51 kgf): more than 3.9 in. (99 mm)


## F04. CHECK HYBRID TRANSMIS-SION OPERATION

- a) Check that the hybrid system will not start if the shift lever is in any position except for "P".
- b) Check that the shift lever cannot be moved from the "P" position without depressing the brake pedal.
- c) Check for smooth up-shift and downshift operation over a broad range of driving conditions.
- d) Check for smooth up-shift and downshift operation when the shift lever is in the "S" position.

Check that the transmission shifts up when the shift lever is moved toward the front.

Check that the transmission shifts down when the shift lever is moved toward the back.



## F05. CHECK HYBRID MODE SE-LECT

a) Press the menu switch and press the "ENTER" switch upwards or downwards until "ECO MODE" appears.



b) Check that the indicator light will illuminate when the "ON" is selected by pressing "ENTER" switch.







 c) Press the menu switch and press the "ENTER" switch upwards or downwards until "HYBRID SNOW" appears.

d) Check that the indicator light will illuminate when the "ON" is selected by pressing "ENTER" switch.

e) Press the menu switch and press the "ENTER" switch upwards or downwards until "EV" appears.

f) Check that the indicator light will illuminate when the "ON" is selected by pressing "ENTER" switch.



## F06. CHECK ELECTRONICALLY MODULATED AIR SUSPEN-SION\* (NOT FOR U.S.A.)

#### Driver's side

- a) Start the hybrid system and select the vehicle height mode with height control switch. Check that the vehicle height change in accordance with the selected mode. At this time, the select mode indicator light blinks then remains on, and the current mode indicator light turns off.
  - 1 "HI" (high) height mode
  - 2 "N" (normal) height mode
  - 3 "LO" (low) height mode
  - 4 Luggage mode

### Luggage side

- b) Start the hybrid system and move the shift lever to the "P" position. Select the vehicle height mode with height control switch and check that the vehicle height change in accordance with the select mode. At this time, the select mode indicator light blinks then remains on and the current mode indicator light turns off.
  - 1 "HI" (high) height mode
  - 2 "N" (normal) height mode
  - 3 Luggage mode
- c) Check that the multi-information display comes on and height control mode cannot be changed when the height control off switch is pressed.







## F07. CHECK TRAC AND/OR VSC SYSTEM

- a) TRAC stops operating Check that the multi-information display comes on when the switch is pressed once.
- b) TRAC and VSC stop operating Check that the indicator light and multiinformation display come on when the switch is pressed and held more than 3 seconds.



RAC OFF

## F08. CHECK AFS (ADAPTIVE FRONT-LIGHTING SYSTEM)\*

a) Press the menu switch and press the "ENTER" switch upward or downward until "AFS" appears.



b) Check that the indicator light will illuminate when the "OFF" is selected by pressing "ENTER" switch.





## F09. CHECK CRUISE CONTROL

- a ) Check the cruise control functions:
  - ON-OFF
  - SET
  - RES
  - CANCEL
- b ) Check that the preset speed is canceled by:
  - Depressing the brake pedal
  - Shifting the shift lever to "N" or "3", "2" or "1" range of "S"
  - Using cancel switch and "ON-OFF" button

For details regarding the operation of the cruise control, refer to the *Owner's Manual*.



## For Vehicle with Dynamic Radar Cruise Control System\*

c) Press the "ON-OFF" button and check that the indicator in the instrument cluster comes on and "RADAR READY" appears on the multi-information display. (Vehicle to vehicle distance control mode)



d) Check that cruise control mode is changed between vehicle to vehicle distance control mode and conventional (fixed speed) control mode by pressing the cruise control lever for longer than about 1 second. (Indicator in the instrument cluster comes on)



- e) Check that the vehicle to vehicle distance setting is changed from "Long" to "Medium" to "Short" and then back to "Long" by pushing the distance switch on the steering wheel.
  - 1 Long
  - 2 Medium
  - 3 Short

NOTE:

Always keep the millimeter wave radar sensor glass clean.

## F10. CHECK STEERING OPERA-TION AND OFF-CENTER

- a) Check steering for smooth turning operation and any unusual noise.
- b ) Check that the steering wheel is correctly aligned when driving on a level road surface.

#### NOTE:

For details about adjustment and inspection, refer to the *Repair Manual*.

## F11. CHECK ABNORMAL NOISE OR VIBRATION

Check for vibration or abnormal noise while the vehicle is in motion.

- a) Wind noise
- b) Power train (engine, hybrid transaxle)
- c) Road noise (tires)
- d) Others

## F12. CHECK SQUEAKS AND RAT-TLES

Check for squeaks and rattles in the follow-ings:

- a) Instrument panel
- b) Doors
- c) Trim
- d) Body
- e) Others

## F13. INITIAL CALIBRATION OF COMPASS

Refer to the Service Bulletin.

## **G. FINAL INSPECTION**



## G01. SET FUNCTIONAL CON-TROL SYSTEM SWITCHES

Set the functional control switches as follows:

- Height control off switch\* in "OFF" (not for U.S.A.)
- VSC off switch and power back door off switch\* in "ON".



## G02. REMOVE INTERIOR PRO-TECTIVE COVERS, ETC.

Remove the remaining plastic covers from the driver knee airbag, front passenger knee airbag, side trim, seats, head restraints, console box cap and sun visors as required. Remove any unnecessary labels, tags and stickers.

It is recommended that the interior protective covers be removed just before delivery of the vehicle to the customer.

## NOTE:

If the interior color is light white for some vehicle, plastic cover will be set for front, center and roof side garnishes.





## G03. PDS CHECKSHEET AND PRODUCT REPORTS

Attach the following printouts to the PDS check sheet:

- Tire pressure printout
- 12-v battery printout
- ECU health check printout

See back of PDS Check Sheet for printout examples.

Complete and sign the pds check sheet, and file with the pds repair order.

Submit product technical reports regarding quality issues as applicable.



## G04. COMPLETE SERVICE POR-TION OF TEAMWORK IN QUALITY INSPECTION CER-TIFICATE

Remove Vehicle Delivery Certificate and VIN number sticker sheet from glovebox. Peel VIN number sticker off sticker sheet and apply to "Vehicle Identification Number" line at inside top of certificate. The person performing PDS is required to sign their name over "Dealership Service Representative" line and return certificate and VIN sticker sheet to glovebox.

## H. BEFORE DELIVERY



## H01. CHECK OWNER'S MANUALS AND PORTFOLIO

- a) Place the Quick Guide booklet in the glove box. If the vehicle is equipped with Navigation, also place the Navigation/ Quick Guide disc in the glove box.
- b) Check that the *Owner's Manual Portfolio* contains the *Owner's Manual(s)* and place in the vehicle cargo compartment.
- c) Check that the airbag information label is affixed on the glove box door and is visible with the glove box closed.

## H02. FILL UP FUEL TANK

Fill the fuel tank to the "FULL" level with premium unleaded fuel that has a Research Octane No. 96 (Octane Rating 91) or higher.

## H03. WASH AND CLEAN VEHICLE

Wash and clean the exterior and interior of the vehicle. Use plenty of water and a soft sponge or cloth when washing the vehicle. Vacuum carpet and seats.

## NOTICE:

It is recommended that you wash the vehicle by hand. If mechanical brushes are used in an "automatic car wash", the brushes may scratch the paint surface.

- Battery Maintenance for In-stock Vehicles & Pre-delivery, See TSIB
- Floormat Installation, see TSIB

# III. MAINTENANCE FOR HV/AUXILIARY BATTERY BEFORE DELIVERY

Refer to the Service Bulletin.